

RSSI

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EPA Region 5 Records Ctr.



226187

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April 23, 2002

Frederick Micke
On-Scene Coordinator
Emergency Response Section No.3
United States Environmental Protection Agency
Region 5
Superfund Division
77 West Jackson Boulevard
Chicago, IL 60604

via facsimile 312-353-9176

Dear Mr. Micke:

This letter is in response to your March 11, 2002, letter regarding analysis of samples collected at the Family Golf Center. Your letter is troubling because it states that RSSI provided analyses that were not provided. We have reviewed all of the identified samples. RSSI did not provide any data on the concentrations of either Ra-226 or Ra-228. We have reviewed the one identified sample, 12898, to confirm that neither Ra-226 nor Ra-228 were quantified. Ra-226 was identified, but not quantified, in this sample. RSSI reported only results for surrogates for Ra-226 and Ra-228. In sample number 12898, the results for Ac-228, a surrogate for Ra-228, and Pb-214, a surrogate for Ra-226, include a large number of energies that are in internal agreement with the reported results.

The EPA did not provide Argonne data for RSSI to compare its results with. Argonne told RSSI that they had not been able to calibrate their analysis system with a standard having the same geometry as the Family Golf Center samples. They had requested a 500 ml Marinelli beaker from the EPA to be used to prepare a standard. However, the EPA did not provide the beaker, and a 500 ml standard was not used. It does not appear that the differences in results would significantly affect any decision making, and this raises the question of why the EPA wrote this letter.

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Most samples are low in specific activity and most of the ratios in your letter are ratios of small numbers with significant error relative to the result. Also, no assessment of the reported sample error for any radionuclides was provided in your letter. An understanding of sampling error is essential to interpreting analytical results. It is disappointing that the EPA did not include this information.

If you would like to explore this issue further, provide the Argonne results. If you have any questions or require additional information, please contact me at 847-965-1999.

Sincerely,



Eli A. Port, CHP, CIH, P.E.

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